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GRADUATE SCHOOL

CONTINUING EDUCATION
FOR THE FEDERAL
COMMUNITY OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

Newsletter

AUG 26 1965

CURRENT SERIAL RECORDS

August 13, 1965

TRAINING OFFICERS LUNCHEONS

Training officers from many departments of the Federal government were guests of the Graduate School at two luncheon events, July 28 and August 3.

Graduate School instructors were the featured speakers at both luncheons. Each gave a brief talk on the subject of his course--in most cases a course that is new or has revised content.



William R. Van Dersal, Assistant Administrator, Soil Conservation Service, USDA, who has been teaching a course in "Modern Supervisory Practice" for some years reported that the course will be offered via television this fall.

Washington's educational Channel 26 will telecast Dr. Van Dersal's lectures. Text and instructional materials will be available from the Graduate School. The course will run for 12 weeks, with each lecture repeated three times at different hours and on different days during each week. Further information about the course will be available soon from the Graduate School.

James E. Daly, Jr., of the Navy Department, described a new course he will present this fall, "Automatic Data Processing Systems--Analysis, Design, Acquisition, and Operation."



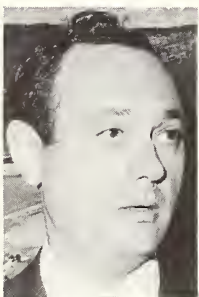
Walter R. Benson, Food and Drug Administration, outlined his new course to be offered during the upcoming semester "Organic Chemistry of Pesticides." He indicated that the course would deal particularly with the effects of pesticides on foods and the processes by which pesticides degrade, or break up, after use.



Mozelle B. Kraus, Office of the Secretary, Smithsonian Institution, explained a new course she will teach in "Psychological Tests and Measurements." The course will deal with how tests are designed and what they can tell about job applicants values, interests, intelligence, aptitudes and achievements.



Harold J. Reed, Office of Education, HEW, who is chairman of the Career Counseling Committee of the Graduate School, told about his committee's evaluation study on counseling and guidance services in the Federal government. The committee also proposes to survey Graduate School students to determine their interests and needs in this area.



Leo Kramer, Office of Economic Opportunity, will offer a course called "War Against Poverty--USDA." He said that this will be put in the context of the social and economic reforms that have always been a part of our country--but that it would also deal with psychology of poverty and with current legislation.



Charles A. Mendez, art director, Department of Defense, spoke about his course in "Basic Design and Illustration," which, he said, will deal with the practical aspects of the subject-- a "how-to-do-it" approach, mostly for beginners.

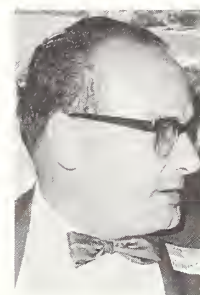


George K. Chacko, Mitre Corporation, pointed out that both his courses, "Statistical Model-Building for Decision-Making" and "Operations Research Approach to National and Industrial Strategy," emphasize the conceptual, as distinguished from the technical, approach. The former will stress the reasoning underlying the models made by design or default. The operations research course will teach the student problem identification and problem formulation, in much the same way as a doctor learns to diagnose diseases from symptoms.

William H. Trotter, Department of Commerce discussed his course on "International Marketing and National Export Expansion." All departments of government, he said, have a part to play in the National Export Expansion Program, and in his course he tries to impart better understanding of this program and the problems and policies involved in developing export and import operations.



Wilbert Schaal, Foreign Agricultural Service, USDA, described a new correspondence course on "Report Writing," which he prepared and teaches. He said that the course is designed in simple terms, for overseas students, but that others in this country may find it useful as well. "Writing," he said, "like eating and sleeping, is something most of us do every day. But most of us could do it better than we do."



Michael Pallansch, Agricultural Research Service, USDA, told about his experiment with a programmed course in Chemistry offered by the Special Program Department. The course is designed for laboratory aids and technicians who work with chemists, but have no previous background in chemistry. Eight specially programmed texts are used with each student progressing at his own rate. Dr. Pallansch meets with the class every other week instead of weekly and supplements the programmed materials with concrete examples. Through the use of programmed materials, he is able to provide more help to individuals and focus on areas where students are experiencing difficulty.



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NEW EVENING COURSES (In addition to those listed above)

BIOLOGICAL SCIENCES: Bird Life (1-151)--Donald Messersmith.

LANGUAGES AND LITERATURE: Writing for Audio-visual Communications (2-273)--Sid L. Schwartz; Oral Reading (2-24)--Gaile A. Sykes.

MATHEMATICS AND STATISTICS: Elements of Abstract Algebra (3-444)--Wesley Sanburn; Numerical Methods in Computation (3-312)--Daniel E. Cowgill; Application of Experimental Statistics to Biological Problems (3-702A)--Richard P. Lehmann; Basic Operating System--IBM 360 Assembler Language--J.S. Lawrence.

PHYSICAL SCIENCES: Radiobiochemistry (5-717A)--Benjamin H. Bruckner;

PUBLIC ADMINISTRATION: Current Policy Problems and Public Administration (6-349)--Clarence J. Hein; American Constitutional Development--Survey (6-516)--Herbert G. Persil; Executive Decision-Making (6-522)--John H. Finlator; Management-Employee--Employee-Management Communications (6-432)--E. R. Draheim; Supervisor's Role in Federal Career Planning (6-434)--Frank G. Johns; Labor Management Relations in Civil Service (6-404)--John G. Gregg; Compensation Practices in Industry and Government (6-330)--Toivo P. Kanninen; Personnel Research--Recent Developments (6-411)--Albert S. Glickman and Francis L. Harmon; Principles of Auditing (6-601)--Theodore C. Haaser; Industrial Organization (7-491)--Russell C. Parker; Federal Government and Electric Power (7-488)--Milton A. Chase; Trading in Commodity Futures (7-7)--Thomas H. Dittmer; Core of General Education (7-463)--Giorgio Tagliacozzo; Psychological Creativity as Applied to Professional Improvement (7-544A)--Reza Arasteh; Racial Conflict in the United States 1865-1965--Seminar (7-552)--Robert S. Wright; Russian Physiological Influences Upon Contemporary Scientific Concepts of Man (7-534)--Robert K. White.

TECHNOLOGY: Civil Engineering Review for P. E. Examination (8-93)--Frank Sears; Advanced Electrical Energy Sources and Energy Conversion (8-346)--William R. Cherry and Joseph Epstein; Heating, Ventilating, and Air Conditioning (8-714)--Gerald M. Hollander; Dimensional Design (8-140)--George Baka.

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SPECIAL PROGRAM (New programmed learning courses)

Career English -- a programmed course including improving your punctuation, writing and grammar. Computers -- an introduction to digital computer concepts and programing techniques. Introduction to Computer Mathematics -- covers number systems, including octal and binary systems, system relationship and conversions. A simplified digital computer is introduced and the student continues the course utilizing the systems in conjunction with the computer. Effective Management Practices -- covers effective decision making, planning, organization, delegation, managerial control and use of executive time.

NEW OFFICES

By September 1, the Graduate School plans to have moved part of its Special Program Department staff to newly furnished classroom and office space in the National Press Building.

Fred Peterson, Ann Dyer and Judy Ryder will be moving from the LaSalle Building on Connecticut Avenue and Jerry Willmore and Arlene Raines will be joining them in the new quarters. A number of daytime and evening classes will be conducted in the two new conference-type classrooms which are being constructed.



Retiring members of the General Administration Board, John W. Macy, Jr. (above), Chairman, Civil Service Commission, and Carl B. Barnes (below), Director of Personnel, USDA, receive Certificates of Appreciation and Readings from the "Critical Issues and Decisions Program." Making the presentation are John B. Holden, Graduate School Director, and Joseph M. Robertson, Chairman of the Board and Assistant Secretary for Administration (USDA).



A CENTER FOR MODERN LEARNING

The Reading Improvement Laboratory in 418-419W of the USDA Administration Building is being converted to provide even greater flexibility in use of space. This will become our Center for Modern Learning Technology.

In addition to the Reading Improvement Courses, which we now offer there, we will be able to offer individual and small group instruction in listening improvement, writing, secretarial practices, computer math, management, and related courses. Most of these new offerings will be available in the form of programed texts, programed film or programed tapes. Some will be used with the new teaching machine we have also ordered.

To assist with some of these programs, we have employed Woodrow Sears, who has completed his Masters Degree in Extension Education at North Carolina State. Mr. Sears is 30 and a former Extension Editor, newspaper reporter, and Marine Corps officer. He will join our staff on September 1 and will be located in Room 419W together with Dee Henderson, who now teaches reading and coordinates a number of Special Program courses.

Interested teachers and committee members are invited to call or visit Mr. Henderson (DU 8-6693) for information on programed learning, available programed texts, films and other materials. Some programed and reference books and materials are available for examination and short-term loan.

We would like to assist teachers who may be interested in experimenting and trying out available programed course materials in mathematics, statistics, the sciences, English and many other areas. We will also need teachers to serve as advisors, tutors and teachers for individuals and small groups who may want to study with our teaching machine and other programed materials.

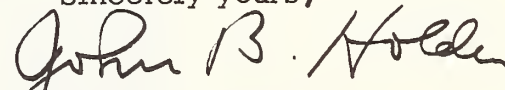
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BOOKSTORE IN NEW LOCATION

The Bookstore, which was located for many years in Room 1022, has been re-located in Room 1419, where we have more desirable space. D. E. Richard, (Extension 6070) our new Business Manager, is also in charge of the Bookstore. For examination copies of textbooks and reference books for the library, you will still contact Vera Jensen (Extension 4419), who remains in charge of the library and information services.

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Sincerely yours,


John B. Holden
Director

THE TEACHER AND TECHNOLOGY
(Excerpts from an article by Professor Edgar Dale, Ohio State University.)

Some persons discuss instructional technology as though it were a real choice whether we should introduce it in the schools. There is no such choice. Our only choice is whether we use educational technology wisely and planfully or whether we use it grudgingly, ineptly, planlessly. Why is the increased use of educational technology inevitable?

First, we have already introduced technology and could not run our schools and colleges without it. A book is a technological product of mass printing. No one suggests that we can go back to manuscripts. Most of the new programs in mathematics, biology, and physics have accompanying films. The language laboratory, using tape recordings, is already a part of the educational program.

Educational television has grown sharply in the past five years and will be increasingly used. The long predicted tidal wave of college students is already upon us. We must choose to have them taught by untrained graduate students (or by undergraduates, as sometimes happens) or multiply the efficiency of the abler teachers through technological services.

Second, we shall use new instructional tools because we are changing our educational objectives. It is slowly dawning on us that pupils do not need to be in the physical presence of a teacher in order to learn. Indeed, the chief aim of a school or college is to develop the independent, self-motivated learner who does not need a teacher. You can have teaching without learning, and learning without teaching.

Indeed, a more appropriate word to use here is communication. This does not set up a sharp division between teaching and learning. Communication, defined as the sharing of ideas in a mood of mutuality, includes both teaching and learning. New developments in educational technology can increase effective communication, growth in independent study.

Independent study will be of two types. There will be a sharp increase in the use of self-correcting teaching materials. These are also referred to as programmed teaching, automated instruction, self-instruction. These materials are written with step-by-step clarity so that the student can learn by himself. Often these will be "adjunct" materials.

We shall also emphasize independent study in which the student takes charge of his own education with limited counsel and guidance from a teacher. This kind of study develops the educated man who is able to stand on his own feet intellectually after he graduates from high school or college. The professors who complain about spoon-feeding in the elementary school or high school forget that you can spoon-feed college students with "canned" lectures, limited discussion or none at all, with major emphasis on memorizing facts, and meager attention to critical thinking and to independent, mature learning.

In all curricula we must differentiate between predictable material to be learned and those unpredictable, creative aspects of the curriculum which may require highly skilled coaching and supervision. If the skills, information, or material to be learned are predictable, then we can prepare self-correcting materials as a significant part of such learning. Present use of textbooks assumes the presence of a teacher who explains the "hard parts," the difficult "key points." Examine, for example, the inadequate explanations given in most arithmetic textbooks for the division of a number by a fraction. It is possible to write textbook explanations which do not require extensive additional clarification by a teacher, thus freeing her for more complicated guidance.

To foster independent study of the type noted above, we must make extensive changes in our schools and colleges. We must provide libraries with rich and extensive learning resources--films, filmstrips, tapes, discs, reference books, maps, exhibits, self-instructional materials--as well as the usual supply of books. All the important ways of communicating will be included among such library materials. Microfilm is commonly found in college libraries and in some high school libraries. Many public libraries now have films, filmstrips, and recordings which can be used there or borrowed.

Furthermore, the role of the teacher must change. To teach carries with it the implication of presenting or explaining subject matter, of giving and correcting tests, of assigning lessons. But when we use textbook materials which have been experimentally tested and rewritten when necessary, additional teacher explanation is not required.

What, then, will the teacher do? She will teach in the sense of arranging superior conditions for learning. She becomes an organizer and manager of learning experiences.

Teachers will work increasingly with individuals and small groups. This means more individualizing of reading, greater attention to the strengths and weaknesses of each learner. Most of all, it means that the teacher has more time to see that all the parts of the education fit together, are integrated. The student can see his learning as a part of a total, interrelated process.

There will be more class time for discussion and creative interaction, because the teacher will not be endlessly correcting the same errors made again and again. Instead, self-instructional materials will remedy such errors rather than using teacher time to re-teach them. The pupil, not the teacher, becomes responsible for his learning.

The point of view noted above will require these changes in the curriculum: First, we shall have to rigorously examine the curriculum to see whether it actually provides the experiences required to reach the desired behavior outcomes. We shall have to state much more clearly than we have in the past the desired behavioral outcome in terms of skill, intellectual abilities, values. This approach is not a new one, since it has characterized methods of effective test construction such as those developed by Ralph Tyler at The Ohio State University and the University of Chicago. It is also a central procedure in all effective curriculum construction.

Second, we must see more clearly than we have in the past those learnings for which the school will be responsible and those which will be learned outside of school--at home, through newspapers and broadcasting, through play, travel, museums, exhibits.

Third, we must realize that the bulk of the important learning of any individual will be obtained after he leaves school.

Skill in reading and a zest for it is one kind of important insurance for continued learning. We must also plan for the fact that many adults will undergo formal course training again and again in their adult life.

Finally, as we move toward a curriculum which emphasizes the development of the independent and responsible learner, we face a difficult problem in motivation. The present curriculum depends upon the teacher and the curriculum for a series of built-in prods to learning. Sometimes the irrelevance of the material taught requires continuing extrinsic pressures. When the individual is no longer in a compulsory educational situation he must substitute internal pressures for external ones.

This will not be easy to achieve, since many youths and adults have experienced "failure" in school. Many drop-outs did poorly in school and feel unfriendly toward learning. They need success experiences to erase their unhappy experiences in school. The best materials that educational technology can provide are needed as we work with disadvantaged youth and adults in retraining programs.

The modern farm uses the latest technology, as does the automated factory. Our kitchens have the latest equipment. Most homes have television sets, and color television will be increasingly common. Our schools too should be equipped with the newest tools of modern communication.